AMENDMENTS TO THE CLAIMS

This Listing of Claims will replace all prior versions and listings of claims in this application.

1. (Original) A process for coupling aromatic or heteroaromatic halogen compounds to form one or more C-C single bonds, characterized in that an Ni(0) complex comprising at least two different ligands, with at least one ligand being selected from each of the two groups consisting of heteroatom-containing ligands (group 1) and of π system ligands (group 2), is used in catalytic amounts,
and a reducing agent which converts consumed nickel back into Ni(0) is used;
the reaction takes place in an anhydrous, aprotic medium under a very largely inert atmosphere, with the proviso that no phosphorus-containing compound is added.

2. (Original) The process as claimed in claim 1, characterized in that it occurs in a single phase.

3. (Previously presented) The process as claimed in claim 1, characterized in that the aromatic or heteroaromatic halogen compounds are aromatics or heteroaromatics having from 2 to 40 carbon atoms, which can be substituted by one or more linear, branched or cyclic alkyl or alkoxy radicals which have from 1 to 20 carbon atoms and in which one or more nonadjacent CH_2 groups can be replaced by O, C=O or a carboxy group, substituted or unsubstituted C2-C20-aryl or –heteroaryl radicals, fluorine, cyano, nitro groups or can also be unsubstituted.

4. (Original) The process as claimed in claim 3, characterized in that the aromatics or heteroaromatics are substituted or unsubstituted derivatives of benzene, naphthalene, anthracene, pyrene, biphenyl, fluorene, spiro, 9,9'-bifluorene, phenanthrene, perylene, chrysene, naphthacene, pentacene, triptycene, pyridine, furan, thiophene, benzothiadiazole, pyrrole, quinoline, quinoxaline, pyrimidine or pyrazine.

5. (Previously presented) The process as claimed in claim 1, characterized in that the catalyst is prepared beforehand.

6. (Previously presented) The process as claimed in claim 1, characterized in that the catalyst is prepared in situ.

7. (Original) A process for preparing an Ni(0) complex as claimed in claim 1, characterized in that a reducing agent is mixed with an Ni(II) salt dissolved in DMF at room temperature, a ligand solution in toluene is slowly added and the mixture is stirred vigorously.

8. (Previously presented) The process as claimed in claim 1, characterized in that the ligands of group 1 contain heteroatoms from main group 5 or 6, with the exception of phosphorus.

9. (Original) The process as claimed in claim 8, characterized in that the ligands contain nitrogen and/or oxygen.

10. (Currently amended) The process as claimed in claim 8, characterized in that the ligands have two η^1 coordinations to the nickel, in each case via the heteroatoms.

11. (Previously presented) The process as claimed in claim 1, characterized in that the ligands of group 2 have at least one η^2 coordination via a π system to the nickel.

12. (Original) The process as claimed in claim 11, characterized in that these ligands comprise alkyne or alkene groups.

13. (Previously presented) The process as claimed in claim 11, characterized in that these ligands have two η^2 coordinations to the nickel, in each case via the π systems.

14. (Previously presented) The process as claimed in claim 1, wherein relatively nonpolar solvents serve as solvent.

15. (Previously presented) The process as claimed in claim 14, characterized in that pentane, cyclohexene, toluene or xylene serve as solvent.

16. (Previously presented) The process as claimed in claim 14, characterized in that these solvents are mixed with inert, dipolar solvents.

17. (Original) The process as claimed in claim 16, characterized in that a mixture of DMF and toluene is used.

18. Cancelled

19. (Previously presented) The process as claimed in claim 1, wherein said nonpolar solvent is an aliphatic and aromatic hydrocarbon.

20. (Previously presented) The process as claimed in claim 15, characterized in that these solvents are mixed with an inert, dipolar solvent and said dipoloar solvent is N,N'-dimethylformamide, N,N'-dimethylacetamide, N-methylpyrrolidin-2-one, tetramethylurea, dimethyl sulfoxide or sulfolane.